

### Remarks

Applicants appreciate the withdrawal of the rejections under 35 U.S.C. § 112 ¶ 2, 35 U.S.C. § 102(a), and 35 U.S.C. § 103(a).

#### The Rejection of Claims 1 and 43-56 Under 35 U.S.C. § 112 ¶ 1

Claims 1 and 43-56 stand rejected under 35 U.S.C. § 112 ¶ 1 as not enabled for their full scope. The Office Action contends the specification teaches methylation detection only at the DAP-kinase *promoter* and that claims 1 and 43-56 therefore are not enabled for assessing methylation of the DAP kinase *gene*. Applicants respectfully traverse the rejection.

First, at a minimum, the rejection does not apply to claims 1, 43-47 or to claims 52-56 as amended. Claims 1, 43-47, and 52-6 do not recite assessing methylation; these claims recite assessing expression of the DAP-kinase gene. The specification teaches that inhibition of DAP-kinase expression correlates with NSCLC tumorigenesis, tumor progression, and tumor aggressiveness. Page 6, lines 21-22. The specification also teaches various methods, all well known in the art, by which DAP-kinase gene expression can be assessed:

Expression of the gene encoding DAP-kinase (e.g., that corresponding to GENBANK<sup>TM</sup> accession no. X76104; reproduced in FIG. 3; SEQ ID NO: 4) can be assessed using a variety of known methods. For example, expression of the gene can be assessed in vitro in cells obtained (e.g., by bronchial lavage or biopsy) from a human. Expression of the gene can be assessed directly (e.g., by detecting the primary transcript, the mRNA, or the protein corresponding to the gene) or indirectly, such as by assessing the methylation state of the gene.

Page 7, lines 6-11. As the specification teaches, assessing methylation is but one way of assessing gene expression. It would not require undue experimentation for those skilled in the

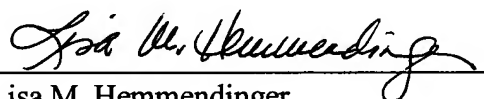
art to assess DAP-kinase gene expression using well known prior art methods, including those taught in the specification.

Second, the rejection should not apply to claim 49 because claim 49 recites subject matter which the Office Action acknowledges is enabled (assessing methylation of the DAP-kinase gene promoter). To advance prosecution, Applicants have amended claim 48 to recite this subject matter and have canceled claim 49. New claims 58-66 also recite assessing methylation of the DAP-kinase gene promoter.

The specification fully enables claims 1, 43-48, and 50-66. Applicants respectfully request withdrawal of the rejection.

Respectfully submitted,  
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